

**DECISION
AND
FINDING OF NO SIGNIFICANT IMPACT
FOR
WILDLIFE DAMAGE MANAGEMENT AT AIRPORTS IN MASSACHUSETTS**

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service (USDA APHIS), Wildlife Services (WS) program responds to requests for assistance from individuals, organizations and agencies experiencing damage caused by wildlife. Ordinarily, according to APHIS procedures implementing the National Environmental Policy Act (NEPA), individual wildlife damage management actions may be categorically excluded (7 CFR 372.5(c), 60 Fed. Reg. 6000-6003, 1995). To evaluate and determine if any potentially significant impacts to the human environment from WS' planned and proposed program would occur, an environmental assessment (EA) was prepared. The EA documents the need for Wildlife Damage Management at Airports in Massachusetts and assessed potential impacts of various alternatives for responding to damage problems. The EA analyzes the potential environmental and social effects for resolving Wildlife Damage at Airports related to the protection of resources, and health and safety on civil and military airports in Massachusetts. WS' proposed action is to implement an Integrated Wildlife Damage Management (IWDM) program on civil and military airports, and adjacent or nearby properties in Massachusetts. Comments from the public involvement process were reviewed for substantive issues and alternatives which were considered in developing this decision.

WS is the Federal program authorized by law to reduce damage caused by wildlife (Act of 1931, as amended (46 Stat. 1486; 7 U.S.C. 426-426c) and the Rural Development, Agriculture, and Related Agencies Appropriations Act of 1988, Public Law 100-102, Dec. 27, 1987. Stat. 1329-1331 (7 U.S.C. 426c). Wildlife damage management is the alleviation of damage or other problems caused by or related to the presence of wildlife, and is recognized as an integral part of wildlife management (The Wildlife Society 1992). WS uses an Integrated Wildlife Damage Management (IWDM) approach, commonly known as Integrated Pest Management (WS Directive 2.105) in which a combination of methods may be used or recommended to reduce damage. WS wildlife damage management is not based on punishing offending animals but as one means of reducing damage and is used as part of the WS Decision Model (Slate et al. 1992, USDA 1997, WS Directive 2.201). The imminent threat of damage or loss of resources is often deemed sufficient for wildlife damage management actions to be initiated (U.S. District Court of Utah 1993). Resource management agencies, organizations, associations, groups, and individuals have requested WS to conduct Wildlife Damage Management to protect resources and human health and safety in Massachusetts. All WS wildlife damage management activities are in compliance with relevant laws, regulations, policies, orders and procedures, including the Endangered Species Act of 1973.

Consistency

The analyses in the EA demonstrate that Alternative 1: 1) best addresses the issues identified in the EA, 2) provides safeguards for public health and safety, 3) provides WS the best opportunity to reduce damage while providing low impacts on non-target species, 4) balances the economic effects to agriculture, natural resources, property, and 5) allows WS to meet its obligations to government agencies or other entities.

Monitoring

The Massachusetts WS program will annually provide to the U.S. Fish and Wildlife Service (FWS) and the Massachusetts Department of Environmental Protection Wildlife Division the WS lethal take of target and non-target animals to help ensure the total statewide take (WS and other take) does not impact the viability of target and non target wildlife species. In addition, the EA will be reviewed each year to ensure that it and the analysis are sufficient.

Public Involvement

The pre-decisional EA was prepared and released to the public for a 30-day comment period (March 15-April 15, 2002) by a legal notice in the *Boston Herald*. The Legal Notice was placed in the paper for two days (March 13, 14, 2002). The pre-decisional EA was also mailed directly to agencies, organizations, and individuals with probable interest in the proposed program. One comment document was received from the public after review of the pre-decisional EA. All comments were analyzed to identify substantive new issues, alternatives, or to redirect the program. All letters and responses are maintained in the administrative file located at the Massachusetts Wildlife Services Office, 463 West Street, Amherst MA. 01002. Wildlife Services responses to specific comments and issues are included in Appendix A of this Decision and FONSI.

Major Issues

The EA describes the alternatives considered and evaluated using the identified issues. The following issues were identified as important to the scope of the analysis (40 CFR 1508.25).

- Effects on Target Wildlife Species and Populations
- Effects on Non-target Wildlife Species Populations, Including T&E Species
- Economic Losses to Property
- Effects on Human Health and Safety
- Effects on Aesthetics
- Humaneness and Animal Welfare Concerns of Methods Used by WS

Affected Environment

The proposed action will affect civil and military airports in Massachusetts.

Alternatives That Were Fully Evaluated

The following four alternatives were developed to respond to the issues. Three additional alternatives were considered but not analyzed in detail. A detailed discussion of the effects of the Alternatives on the issues is described in the EA; below is a summary of the Alternatives.

Alternative 1 - Integrated Wildlife Damage Management (Proposed Action/No Action)

The proposed action is to continue the current portion of the Massachusetts WS program that responds to requests for WDM assistance to protect property, and human health and safety at civil and military airports in the Commonwealth of Massachusetts. An Integrated Wildlife Damage Management (IWDM) approach would be implemented to allow the use of any legal lethal or nonlethal technique or method, used singly or in combination, to meet the request or needs for resolving wildlife conflicts (Appendix B of the EA). Airport personnel requesting assistance would be provided with information regarding the use of effective non-lethal and lethal techniques. Lethal methods used by WS may

include shooting, trapping, DRC-1339 (Starlicide, Avitrol), or euthanasia following live capture by trapping. Non-lethal methods used or recommended by WS may include habitat alteration, chemical repellents (e.g., methyl anthranilate), wire barriers and deterrents, netting, and harassment and scaring devices. The implementation of non-lethal methods such as habitat alteration and exclusion-type barriers would be the responsibility of the requesting airport or land manager to implement. Wildlife damage management activities would be conducted in the State, when requested and funded, on private or public property, including airport facilities and adjacent or nearby properties, after an *Agreement for Control* or other comparable document has been completed. All management actions would be consistent with other uses of the area and would comply with appropriate federal, state, and local laws.

Alternative 2 - Non-lethal WDM Only By WS. This alternative would require WS to use and recommend non-lethal methods to resolve wildlife damage problems in all situations. Requests for information regarding lethal management approaches would be referred to MA DEP, USFWS, local animal control agencies, or private businesses or organizations. Persons receiving technical assistance could still resort to lethal methods that were available to them. Individuals might choose to implement WS nonlethal recommendations, implement lethal methods or other methods not recommended by WS, contract for WS direct control services, use contractual services of private businesses, or take no action. In some cases, control methods employed by others could be contrary to the intended use or in excess of what is necessary. Currently, DRC-1339 and Alpha-Chloralose are only available for use by WS employees. Therefore, use of these chemicals by private individuals would be illegal. Under this alternative, Alpha-Chloralose would be used by WS personnel to capture and relocate wildlife. Avitrol could be used by State certified restricted-use pesticide applicators. Appendix B of the EA describes the non-lethal methods available for use and recommendation by WS under this alternative.

Alternative 3 - Lethal WDM Only By WS. This alternative would require WS to use and recommend lethal methods to resolve wildlife damage problems in all situations. Technical assistance would include making recommendations to the USFWS and MA DEP regarding the issuance of permits to resource owners to allow them to take wildlife by lethal methods. Requests for information regarding non-lethal management approaches would be referred to MA DEP, USFWS, local animal control agencies, or private businesses or organizations. Individuals might choose to implement WS lethal recommendations, implement non-lethal methods or other methods not recommended by WS, contract for WS direct control services, use contractual services of private businesses, or take no action. In some cases, control methods employed by others could be contrary to the intended use or in excess of what is necessary. Currently, DRC-1339 and Alpha-Chloralose are only available for use by WS employees. Therefore, use of these chemicals by private individuals would be illegal. Avitrol could be used by State certified restricted-use pesticide applicators. Appendix B of the EA describes the lethal methods available for use and recommendation by WS under this alternative.

Alternative 4 - No Federal WS WDM. This alternative would eliminate Federal involvement in WDM at all airports in Massachusetts. WS would not provide direct operational services or technical assistance. All requests for information regarding the management of wildlife damage at airports would be referred to MA DEP , USFWS, local animal control agencies, or private businesses or organizations. Individuals might choose to implement their own wildlife damage control program, use contractual services of private businesses, or take no action. In some cases, control methods employed by others could be contrary to the intended use or in excess of what is necessary. DRC-1339 and

Alpha-Chloralose are only available for use by WS employees and would not be available for use under this alternative. Therefore, use of these chemicals by private individuals would be illegal. Avitrol could be used by State certified restricted-use pesticide applicators.

Alternatives Considered But Not Analyzed in Detail With Rationale

Technical Assistance Only. This alternative would not allow WS operational WDM at Massachusetts airports. WS would only provide technical assistance and make recommendations when requested. This alternative has been determined ineffective based upon the unsuccessful attempts by airport personnel to conduct WDM prior to WS direct control involvement.

White-tailed deer population stabilization through birth control. Deer would be sterilized or contraceptives administered to limit the ability of deer to produce offspring. Contraceptive measures for deer can be grouped into four categories: surgical sterilization, oral contraception, hormone implantation, and immunocontraception (the use of contraceptive vaccines). These techniques would require that deer receive either single, multiple, or possibly daily treatment to successfully prevent conception. The use of this method would be subject to approval by Federal and State Agencies. This alternative was not considered in detail because: (1) it would take a number of years of implementation before the deer population would decline and therefore, damage would continue at the present unacceptable levels for a number of years; (2) surgical sterilization would have to be conducted by licensed veterinarians, would therefore be extremely expensive, (3) it is difficult, time-consuming, and expensive to effectively live trap, chemically capture, or remotely treat the number of deer necessary to effect an eventual decline in the population; (4) no chemical or biological agents for contracepting deer have been approved for use by State and Federal regulatory authorities.

Live-capture and relocation of white-tailed deer. Under this alternative WS would capture deer alive using cage-type live traps or capture drugs administered by dart gun and then relocate the captured deer to another area. Numerous studies have shown that live-capture and relocation of deer is relatively expensive, time-consuming, and inefficient (Ishmael and Rongstad 1984, O'Bryan and McCullough 1985, Diehl 1988, Jones and Witham 1990, Ishmael et al. 1995). Population reduction achieved through capture and relocation is labor intensive and would be costly (\$273-\$2,876/deer) (O'Bryan and McCullough 1985, Bryant and Ishmael 1991). Additionally, relocation frequently results in high mortality rates for relocated deer (Cromwell et. al. 1999, O'Bryan and McCullough 1985, Jones and Witham 1990, Ishmael et al. 1995). Deer frequently experience physiological trauma during capture and transportation and deer mortality after relocation has ranged from 25-89% (Jones and Witham 1990, Mayer et al. 1993). O'Bryan and McCullough (1985) found that only 15% of radio-collared black-tailed deer that were live-captured and relocated from Angel Island, California, survived for 1 year after relocation. Although relocated deer usually do not return to their location of capture, some do settle in familiar suburban habitats and create nuisance problems for those communities (Bryant and Ishmael 1991). High mortality rates of relocated deer, combined with the manner in which many of these animals die, make it difficult to justify relocation as a humane alternative to lethal removal methods (Bryant and Ishmael 1991). Chemical capture methods require specialized training and skill. A primary limitation of darting is the limited range at which deer can be effectively hit which is generally less than 40 yards. With modern scoped rifles, however, a skilled sharpshooter can hit the head or neck of a deer for a quick kill out to 200 yards and beyond. Thus, chemical capture is far less

efficient, more labor intensive, and much more costly than removal with rifles. Additionally, the American Veterinary Medical Association, the National Association of State Public Health Veterinarians, and the Council of State and Territorial Epidemiologists opposes relocation of mammals because of the risk of disease transmission (USDA 1997).

Finding of No Significant Impact

The analysis in the EA indicates that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of this proposed action. I agree with this conclusion and therefore find that an EIS need not be prepared. This determination is based on the following factors:

1. Wildlife Damage Management on Airport property as conducted by WS in Massachusetts is not regional or national in scope.
2. The proposed action would pose minimal risk to public health and safety. Risks to the public from WS methods were determined to be low in a formal risk assessment (USDA 1997, Appendix P).
3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. Built-in mitigation measures that are part of WS's standard operating procedures and adherence to laws and regulations will further ensure that WS activities do not harm the environment.
4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to wildlife damage management, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
6. The proposed action would not establish a precedent for any future action with significant effects.
7. No significant cumulative effects were identified through this assessment. The number of wildlife species on airports killed by WS, when added to the total known other take of this species, would fall within population management objectives supported by the Massachusetts Department of Environmental Protection Wildlife Division and the U.S. Fish and Wildlife Service. The EA discussed cumulative effects of WS on target and non-target species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State.
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause

any loss or destruction of significant scientific, cultural, or historical resources.

9. The proposed project would not adversely affect Federally or Massachusetts State listed threatened or endangered species.
10. The proposed action would be in compliance with all federal, state, and local laws.

Decision and Rationale

I have carefully reviewed the Environmental Assessment (EA) prepared for this proposal and the input from the public involvement process. I believe that the issues identified in the EA are best addressed by selecting Alternative 1 (Integrated Wildlife Damage Management Program (Proposed Action/No Action) and applying the associated mitigation measures discussed in Chapter 3 of the EA. Alternative 1 is selected because (1) it offers the greatest chance at maximizing effectiveness and benefits to airport owners and managers while minimizing cumulative impacts on the quality of the human environment that might result from the program's effect on target and non-target species populations; (2) it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and, (3) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of these issues are considered. The comments identified from public involvement were minor and did not change the analysis. Therefore, it is my decision to implement the proposed action as described in the EA.

Copies of the EA are available upon request from the Massachusetts Wildlife Services Office, 463 West Street, Amherst, MA. 01002.

Rick D. Owens, Acting Regional Director
APHIS-WS Eastern Region

Date

Appendix A

Response to Public Comment for

Finding of No Significant Impact for Wildlife Management at Airports in Massachusetts

1. *Airports are a critical habitat for grassland species.*

Program Response: The sole function of an Airport is to provide a safe environment for the departure and landing of aircraft. An airport is not designed for enhancing wildlife habitat nor propagate wildlife species. The determination of an airfield grass height is a management tool to ensure a safe environment for aircraft. The management of state grassland species is the responsibility of the state, enhancement of those species should be conducted on state properties managed for wildlife or natural resources. Grassland birds are not historical residents of the Northeastern US and Airports provide and artificial habitat base.(Norment 2002).

2. *APHIS/WS activities at airports in Massachusetts will adversely impact breeding populations of grassland bird species, including Massachusetts listed Threatened and Endangered bird species within the state. The EA lacks sufficient analysis of potential impacts on grassland species.*

Program response: In making an informed decision of potential environmental impacts, APHIS/WS uses the best available scientific information, data and expert advise. Appendix A of the EA provides a list of 105 documents that are used and referenced throughout the EA for analyzing potential impacts of the proposed program and Appendix C of the EA provides a list of the persons consulted in the development of the EA. Potential impacts are systematically analyzed in Chapter 4 of the EA. Each issue is fully explained and analyzed against each alternative to allow the reader an objective way to evaluate potential outcomes of each alternative. By conducting such a systematic and objective analysis, and using the best available scientific information, data and expert advise, WS is able to make an informed decision as required by NEPA.

APHIS/WS impacts to breeding populations of grassland birds are presented in Sections 4.1.1 and 4.1.2 of the EA. As stated in these sections, APHIS/WS take of grassland bird species is expected to be minimal to non-existent. APHIS/WS has not killed any non-target grassland bird species since 1999. Although it is possible that APHIS/WS may inadvertently kill a non-target bird species the effects of such actions are expected not to impact overall populations of any bird species in Massachusetts. As for the potential affects of APHIS/WS direct lethal removal activities on grassland bird species, it is expected that less than 20 individuals of any given bird species would be removed by APHIS/WS while conducting WDM activities, except for starlings, blackbirds, rock dove, mixed gull species, Canada geese, and swallows. No species of concern such as Grasshopper Sparrows or Upland Sandpiper or other state endangered species would be taken. The analysis of potential impacts on these species is presented in Section 4.1.1 of the EA and concludes that APHIS/WS management actions will not have a cumulative adverse impact on any target bird species in Massachusetts. APHIS/WS consulted with the MA DEP regarding these potential impacts and they have concurred that APHIS/WS WDM actions will not adversely affect bird populations in Massachusetts (MA DEP 2002).

As presented in Section 1.9 of the EA the USFWS and MA DEP have regulatory authority to manage

migratory bird species in Massachusetts. All direct take of migratory bird species, including grassland bird species, is regulated by permits issued by the USFWS and approved by the MA DEP. This permitting process assures that APHIS/WS permitted take of migratory bird species will have no cumulative adverse impact on bird species within Massachusetts and the Northeastern U.S.

3. The development of this EA lacked full participation by interested agencies and groups involved in the surveying of and management of grassland species.

Program Response: APHIS/WS follows all applicable laws, regulations, and guidelines in analyzing potential impacts of their actions, including those established by NEPA. In making an informed decision of potential environmental impacts, APHIS/WS uses the best available scientific information, data and expert advice. Appendix A of the EA provides a list of 105 documents that are used and referenced throughout the EA for analyzing potential impacts of the proposed program and Appendix C of the EA provides a list of the persons consulted in the development of the EA.

As part of the public involvement process, and as required by the Council on Environmental Quality (CEQ) and APHIS-NEPA implementing regulations, this document and its Decision are being made available to the public through "Notices of Availability" (NOA) published in local media and through direct mailings of NOA to parties that have specifically requested to be notified. The pre-decisional EA was released for a 30 day comment public comment period to allow interested parties an opportunity to comment on the proposed program. By conducting this type of public involvement process APHIS/WS is providing the opportunity for all interested individuals and groups to participate in the decision making process.

4. The EA provides an incomplete list of state and federally listed Threatened and Endangered species.

Program Response: Section 4.1.2 of the EA provides a complete list of state and federally listed Threatened and Endangered species.

5. The EA lacks sufficient data supporting the need to reduce human health and safety risks that grassland bird species present at airports in Massachusetts.

Program Response: While a grassland species such as the Grasshopper sparrow or other grassland species of concern for that matter does not pose a serious threat to aviation. The tall grass habitat that is preferred by grassland species serves as an attractant to some birds that are hazardous to aircraft and is a harborage for rodents. The tall grass habitat may obstruct vision and vehicle movements of operations personnel involved in bird harassment (Barras 2000). The airport must have the flexibility to manage its grass height through the practice of mowing to ensure a safe environment for aircraft safety. Studies suggest tall grass may not be an effective means of reducing bird numbers on airports (Seamans 1999).

6. Habitat management for grassland nesting bird species may be an effective non-lethal control

measure in reducing airport conflicts associated with geese, gulls, iterids, and mixed shorebird flocks.

Program Response: Airports must have the flexibility to manage their grass heights on the airfield to ensure a safe environment for aviation operations. Habitat management represents a long-term component of integrated programs for reducing bird use of airport environments. Vegetation height management is one habitat management technique commonly used on airports. (Barras 20000). The USAF recommends that all military airports manage their grass height between 7-14 inches and Air Transport Canada recommends that all Canadian Airports manage their grass at a height of 6-10 inches. These mowed grass heights are directed at the species that are most frequently struck by aircraft. These grass heights also shows a reduced population in rodents. There is no evidence that shows that tall grass management will discourage Canada geese nor European starlings, both species which have been associated with fatal aircraft accidents. However, studies do find that there is an almost 2:1 use of un-mowed plots over mowed plots by individuals of the ten most frequently struck species further suggesting that un-mowed vegetation regime increased risk of bird strike. (Barras 2000). Tall uncut grass is not a practical solution to the reduction in attractiveness to birds.

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